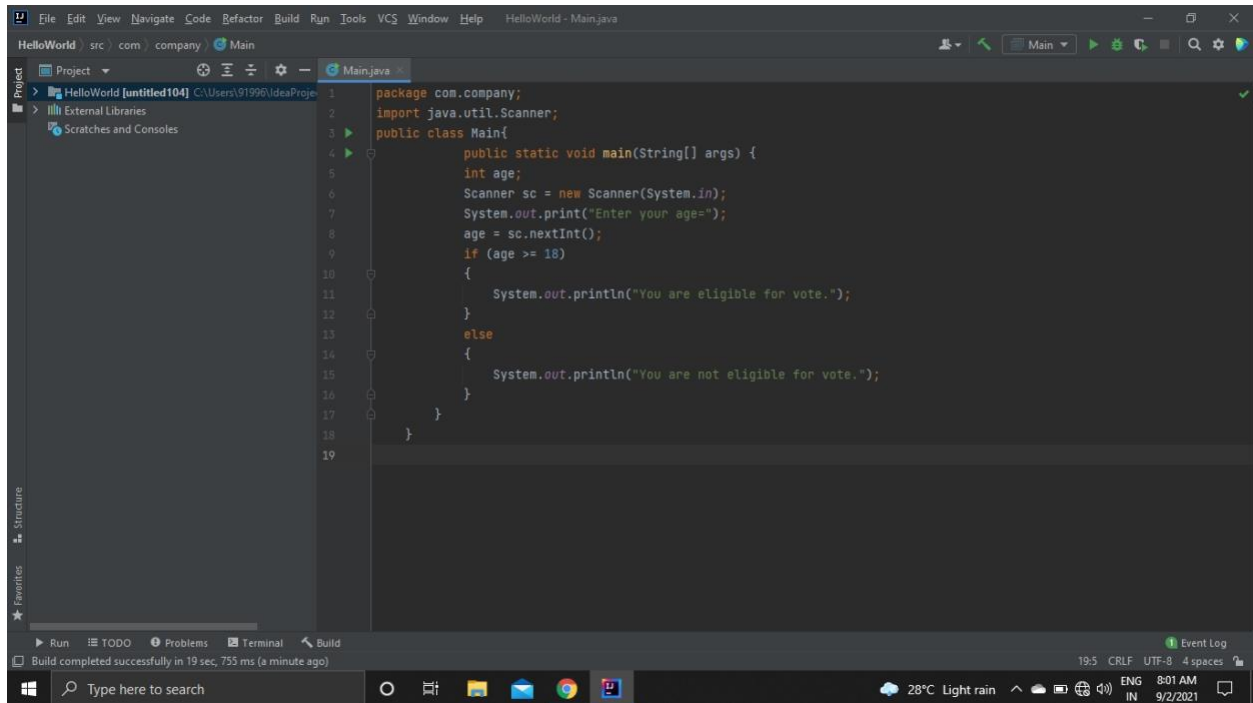


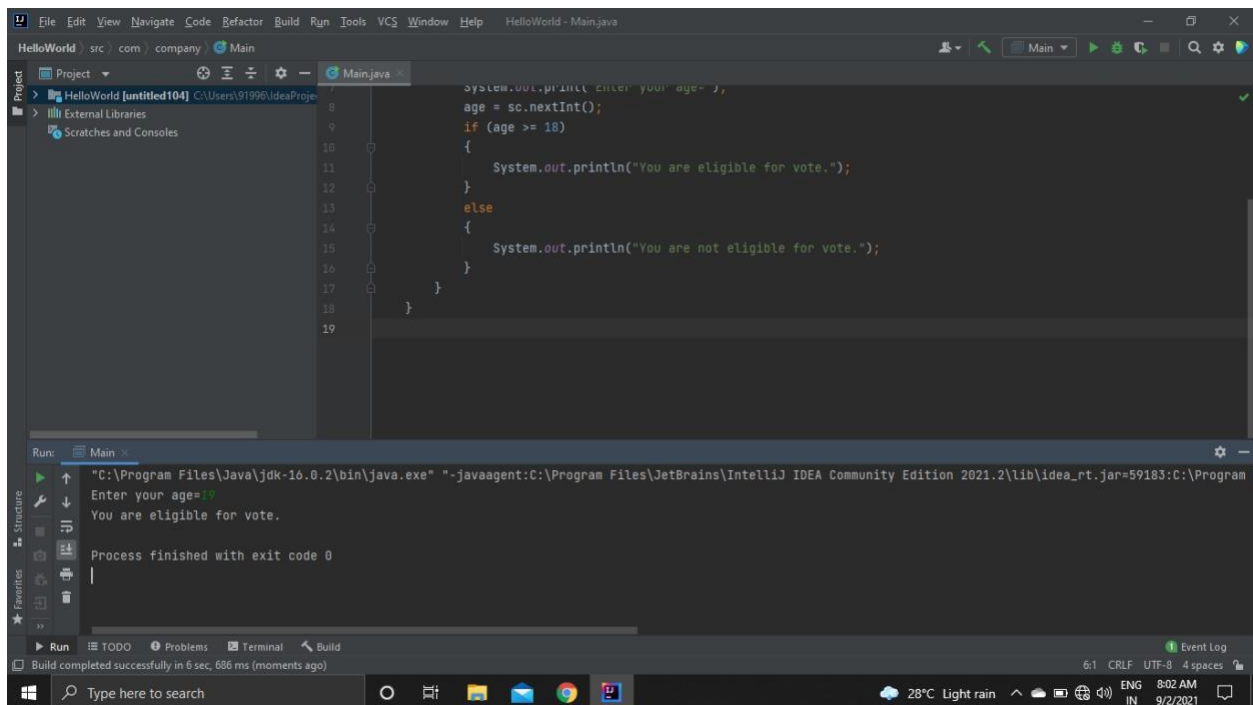
# 1. Check whether the given age is eligible to vote or not

## PROGRAM :



```
1 package com.company;
2 import java.util.Scanner;
3 public class Main{
4     public static void main(String[] args) {
5         int age;
6         Scanner sc = new Scanner(System.in);
7         System.out.print("Enter your age=");
8         age = sc.nextInt();
9         if (age >= 18)
10            {
11                System.out.println("You are eligible for vote.");
12            }
13         else
14            {
15                System.out.println("You are not eligible for vote.");
16            }
17     }
18 }
19
```

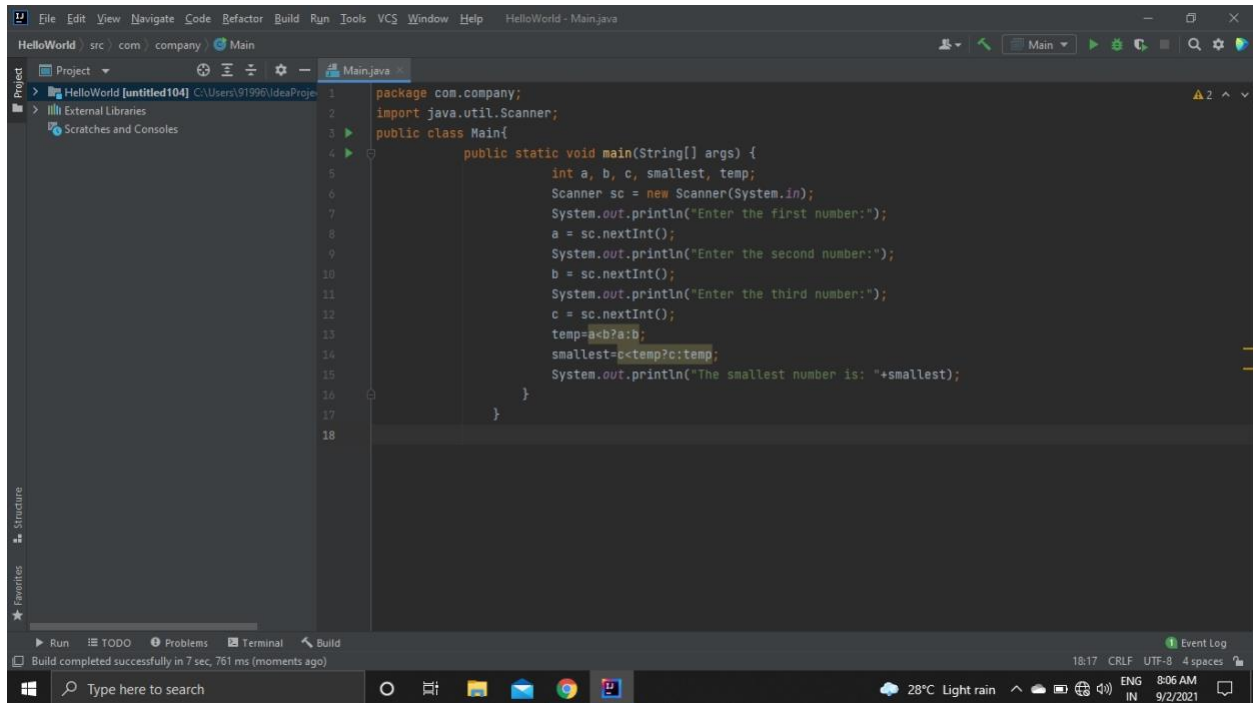
## OUTPUT :



```
Run: Main
"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea_rt.jar=59183:C:\Program
Enter your age=19
You are eligible for vote.
Process finished with exit code 0
```

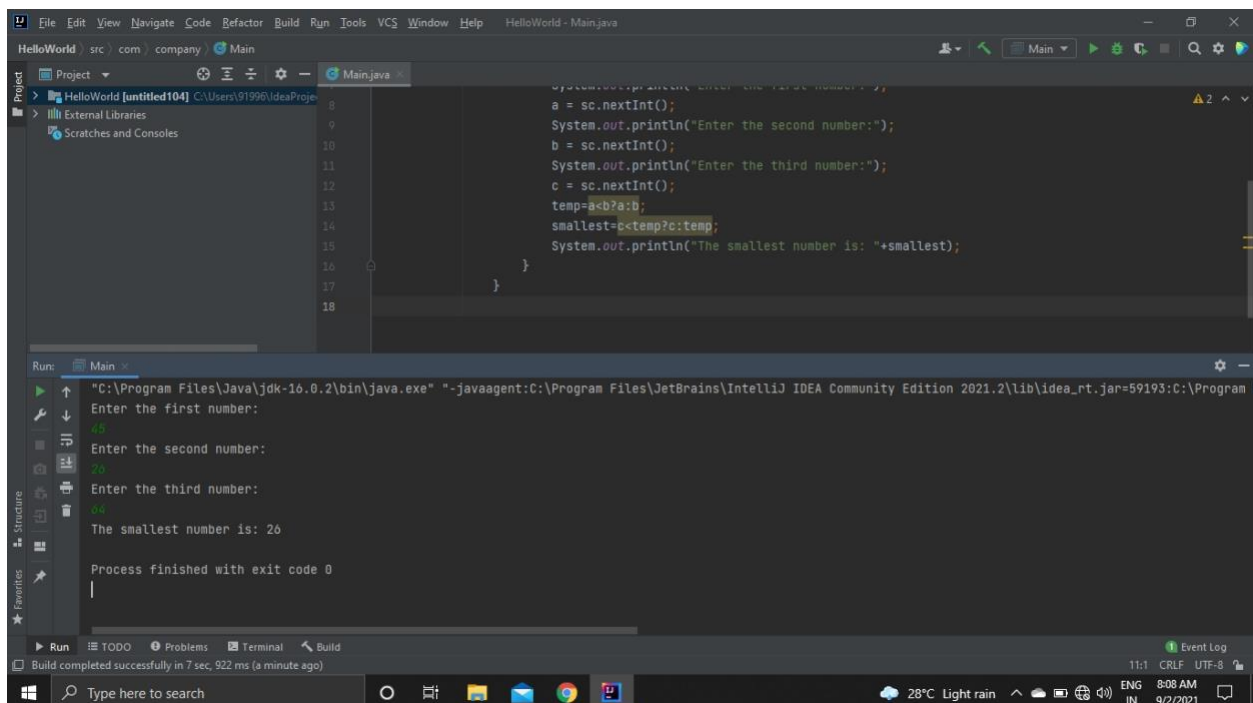
## 2. Find smallest of 3 given numbers

### PROGRAM :



```
1 package com.company;
2 import java.util.Scanner;
3 public class Main{
4     public static void main(String[] args) {
5         int a, b, c, smallest, temp;
6         Scanner sc = new Scanner(System.in);
7         System.out.println("Enter the first number:");
8         a = sc.nextInt();
9         System.out.println("Enter the second number:");
10        b = sc.nextInt();
11        System.out.println("Enter the third number:");
12        c = sc.nextInt();
13        temp=a+b?a:b;
14        smallest=c<temp?c:temp;
15        System.out.println("The smallest number is: "+smallest);
16    }
17 }
18
```

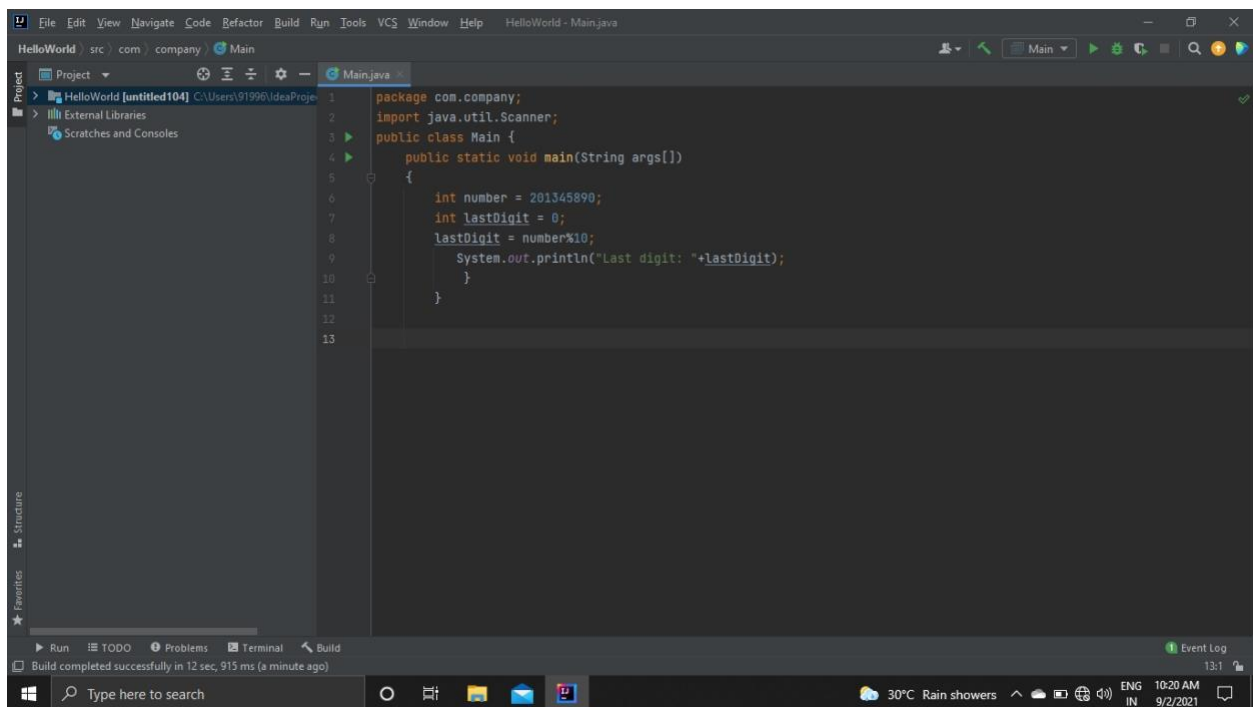
### OUTPUT :



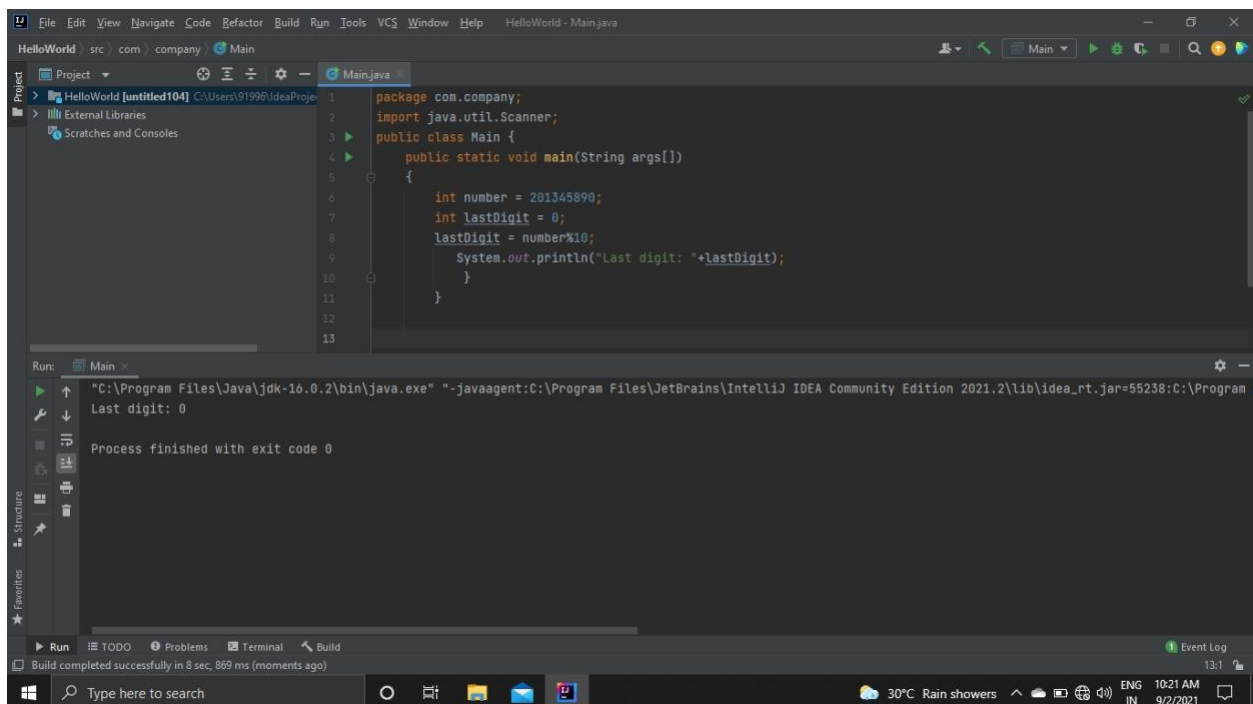
```
Run: Main
"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea_rt.jar=59193:C:\Program
Enter the first number:
45
Enter the second number:
26
Enter the third number:
45
The smallest number is: 26
Process finished with exit code 0
```

### 3. Display the last digit of given number

**PROGRAM :**

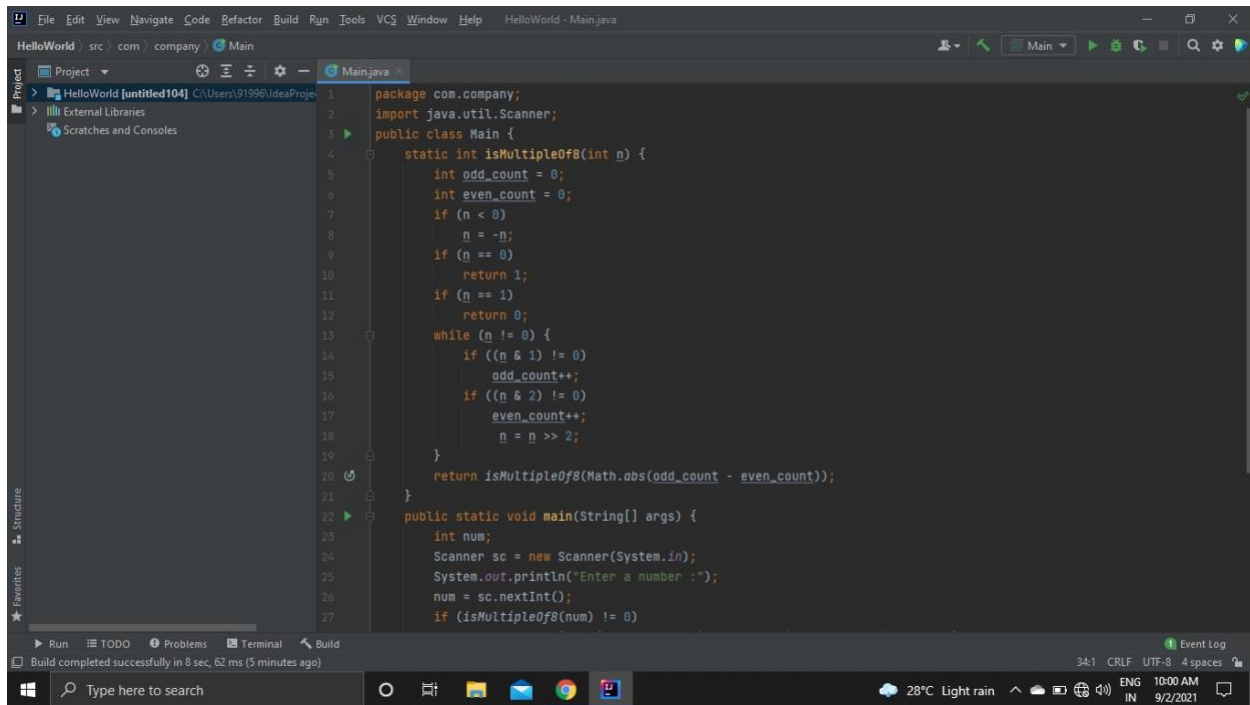


### OUTPUT :

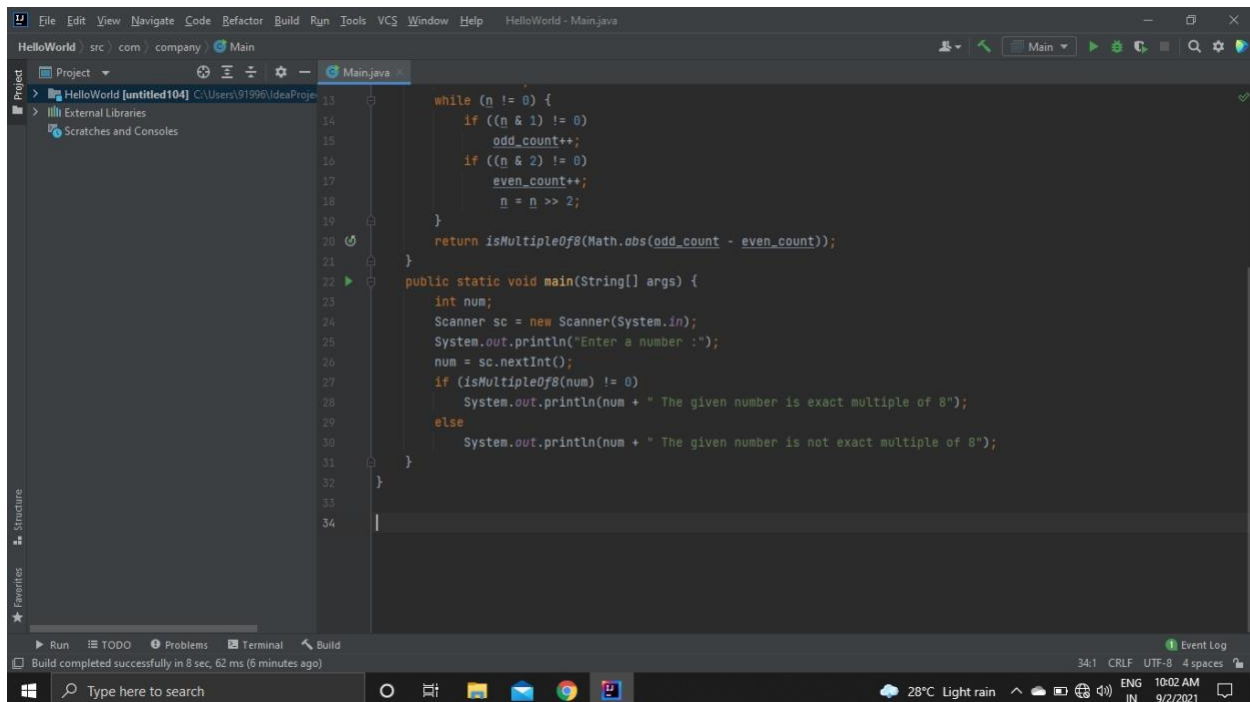


## 4. Check whether given number is exact multiple of 8?

### PROGRAM :

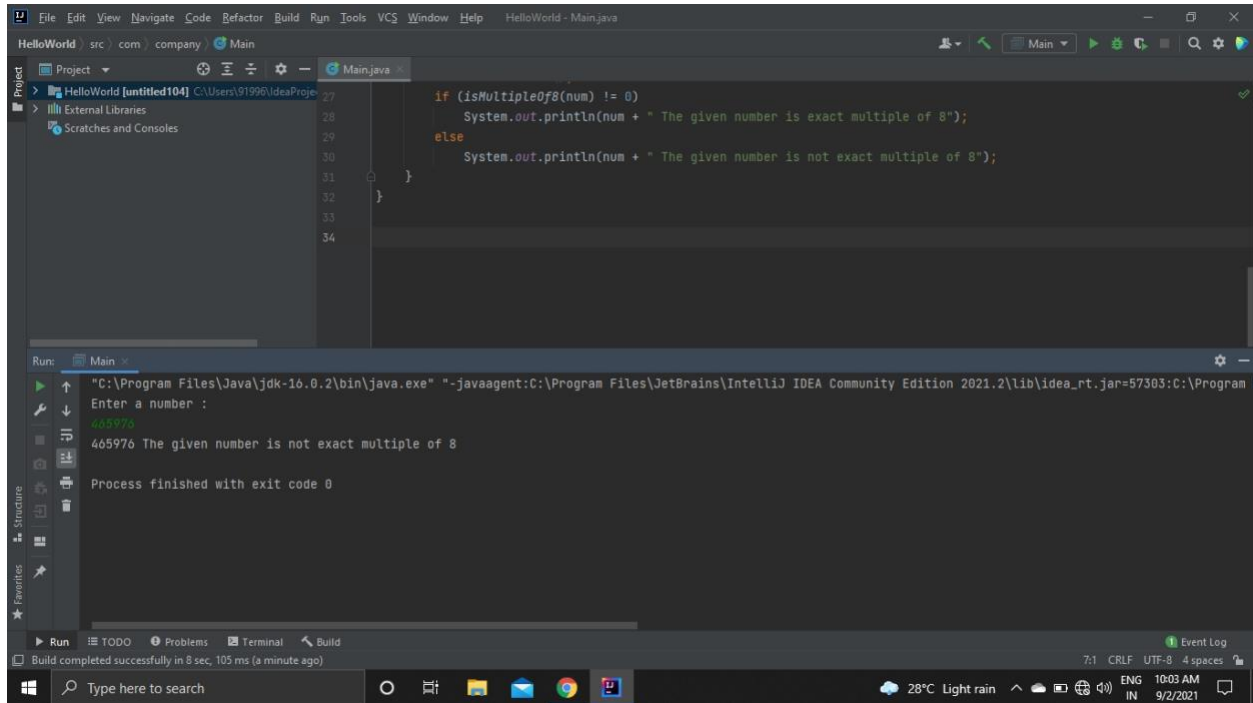


```
1 package com.company;
2 import java.util.Scanner;
3 public class Main {
4     static int isMultipleOf8(int n) {
5         int odd_count = 0;
6         int even_count = 0;
7         if (n < 0)
8             n = -n;
9         if (n == 0)
10            return 1;
11         if (n == 1)
12            return 0;
13         while (n != 0) {
14             if ((n & 1) != 0)
15                 odd_count++;
16             if ((n & 2) != 0)
17                 even_count++;
18             n = n >> 2;
19         }
20         return isMultipleOf8(Math.abs(odd_count - even_count));
21     }
22     public static void main(String[] args) {
23         int num;
24         Scanner sc = new Scanner(System.in);
25         System.out.println("Enter a number :");
26         num = sc.nextInt();
27         if (isMultipleOf8(num) != 0)
```



```
13         while (n != 0) {
14             if ((n & 1) != 0)
15                 odd_count++;
16             if ((n & 2) != 0)
17                 even_count++;
18             n = n >> 2;
19         }
20         return isMultipleOf8(Math.abs(odd_count - even_count));
21     }
22     public static void main(String[] args) {
23         int num;
24         Scanner sc = new Scanner(System.in);
25         System.out.println("Enter a number :");
26         num = sc.nextInt();
27         if (isMultipleOf8(num) != 0)
28             System.out.println(num + " The given number is exact multiple of 8");
29         else
30             System.out.println(num + " The given number is not exact multiple of 8");
31     }
32 }
33
34 |
```

## OUTPUT :



The screenshot displays the IntelliJ IDEA IDE interface. The top toolbar includes menus for File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, VCS, Window, and Help. The main editor window shows a Java file named 'Main.java' with the following code:

```
27 if (isMultipleOf8(num) != 0)
28     System.out.println(num + " The given number is exact multiple of 8");
29 else
30     System.out.println(num + " The given number is not exact multiple of 8");
31 }
32 }
33
34
```

Below the editor, the 'Run' console shows the execution output for 'Main':

```
"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA Community Edition 2021.2\lib\idea_rt.jar=57303:C:\Program
Enter a number :
465976
465976 The given number is not exact multiple of 8
Process finished with exit code 0
```

The bottom status bar indicates 'Build completed successfully in 8 sec, 105 ms (a minute ago)' and shows system information: 7:1 CRLF UTF-8 4 spaces, ENG IN, 10:03 AM, 9/2/2021.